## DEAN FOLLMANN

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#### **EDUCATION**

1981-85 Carnegie Mellon University. Ph.D. in Statistics. Dissertation advisor, Dr. Diane Lambert. Dissertation topic: *Nonparametric Mixtures of Logistic Regression Models*.

1980-81 Northern Illinois University. M.S. in Statistics.

1978-80 Northern Illinois University. B.S. in Mathematics and Psychology, cum laude.

1975-77 Elgin Community College. A.A. in Psychology.

#### **HONORS**

Elgin Community College Distinguished Alumni Award 2019.

DHHS Secretary's Award for Distinguished Service: Ebola Clinical Research Response Team 2015.

NIAID Merit Award 2011.

NIH Directors Award 2010.

Best Paper in *Biometrics* 2009: Chop-Lump Tests for Vaccine Trials. Also selected in 2013 as one of 15 classic *Biometrics* papers.

NIH Merit Award 1993, 2008.

Fellow of the American Statistical Association 2003.

Carnegie Mellon University's "Statistics Student of the Year", 1984.

Member Sigma Xi, Phi Kappa Phi, Pi Mu Epsilon, and Phi Theta Kappa.

National Research Service Award Fellowship, 1981-85.

#### **JOBS**

2002-present National Institute of Allergy and Infectious Diseases. Assistant Director for Biostatistics, NIAID and Chief of the Biostatistics Research Branch. Head a group of statisticians who are involved in overseeing large multi-center studies, collaborating in medical studies, and conducting independent statistical research. Also serve on the NIAID Executive Committee.

1988-2002 National Heart, Lung, and Blood Institute. Involved in the design and analysis of clinical trials and epidemiological studies. Experience with several large multi-center investigations involving cardiovascular disease, diabetes, emphysema, HIV infection, heart failure, hypertension, and transfusion therapies. Also conducted independent statistical research and collaborated in small studies of various disease and therapies.

1985-88 Center for Naval Analyses. Directed and collaborated in studies involving Navy manpower, surface ship readiness, and the reliability of electronic systems. Top Secret

security clearance.

1984 RAND Corporation. Developed models to predict occupational choices of Air Force enlisted personnel at reenlistment.

### PROFESSIONAL EXPERIENCE

## Committees, Panels, Boards

Member of the FDA's Vaccine Biomarkers for Regulatory Purposes Workshop Planning Committee 2018-19.

Member of the External Review Panel for the NHLBI Office of Biostatistics Research, January 2019.

Ad hoc member of the National Institute of Environmental Health Sciences (NIEHS) Committee on Promotion IV, September 2018.

Member of the HHS Zika Medical Countermeasures Leadership Group (ZLG) 2016-present.

Member of the Epidemiology/Biometry Review Panel of the NIH Central Tenure Committee, 2017-present.

Member of the David Sackett Trial of the Year Committee for the Society for Clinical Trials, 2017-19.

Member of the HHS Zika Vaccine Development Interagency Working Group (ZIG) 2017-2018.

Member of a Workshop on the Pathway to a Universal Influenza Vaccine, 2017.

Chair of the Scientific Advisory Board for the Vaccine Immunology Statistical Center of the Collaboration for AIDS Vaccine Development Program of the Bill & Melinda Gates Foundation 2009-present.

Member of the Biomarkers Consortium of the Foundation for NIH 2010-2018.

Panelist for Workshop on Ethical Considerations Around Novel Combination Prevention Modalities in HIV Prevention and Vaccine Trials in Resource Limited Settings, April 2013

Member of the Department of Statistics Advisory Board for Carnegie Mellon University, April 2013.

Member of the Scientific Steering Committee for Project Phidisa—a Clinical Trials Network in the South African National Defence Force 2011-2015.

Member of the Advisory Board of the George Mason University Department of Statistics 2009-2013.

Panelist for the Antibacterial Drug Development Council of the Brookings Institution 2012.

Panelist on the Statistical Think Tank for Antibacterial Drug Development, Clinical Trials Transformation Initiative August 2012.

ENAR Educational Advisory Committee 2012.

Member of a Peer Review Panel for the Division of HIV/AIDS Prevention of the CDC April 2009.

Member of a Special Review Panel for the Biometry Research Group of the National Cancer

Institute, Spring 2008.

Member of the Board of Scientific Counselors for the review of the Laboratory of Epidemiology, Demography, and Biometry of the National Institute on Aging, May 2008.

Member WHO-UNAIDS Technical Consultation on Clinical Trial Design of Novel Concepts to Determine HIV Vaccine Efficacy, Feb 2006.

Member of the Advisory Panel on Use of Generics in ACTG Protocols, 2006-present.

Panel discussant at the workshop for "Future Clinical Trials Issues in Multiple Sclerosis," Washington, DC. December 2004

Member of the External Advisory Committee to the HIV Vaccine Trials Network 2004.

Member of the NICHD/FDA Newborn Drug Development Initiative Cardiology Working Group, 2004.

Member of the Partnership in AIDS Vaccine Evaluation (PAVE) Efficacy Trial Design Working Group 2004-2008.

#### **Editorial Service**

Advisory Editor, *Chance*, 2014-present.

Associate Editor, Journal of Biopharmaceutical Statistics, 2000-present.

Editorial Board, Statistical Communications in Infectious Diseases 2009-2012.

Associate Editor, Biometrics, 2005-2011.

Consulting Statistician, Blood, 1999-2013.

Referee for American Journal of Epidemiology, American Statistician, Annals of Statistics, Annals of Applied Statistics, Bioanalysis, Blood, Biometrics, Biometrika, Biostatistics, BMC Medical Research Methodology, British Medical Journal, Clinical Infectious Diseases, Communications in Statistics, Computational Statistics and Data Analysis, Contemporary Clinical Trials, Epidemiologic Reviews, Electronic Journal of Statistics, IEEE Transactions on Information Theory, Infectious Diseases in Obstetrics and Gynecology, International Journal of Biostatistics, International Journal of Statistics and Management Systems, Journal of the American Statistical Association, Journal of Circadian Rhythms, Journal of Business and Economic Statistics, Journal of Biopharmaceutical Statistics, Journal of Interferon & Cytokine Research, Journal of The Royal Statistical Society: Series B, Journal of Statistical Computation and Simulation, Journal of Statistical Planning and Inference, New England Journal of Medicine, Psychological Bulletin, Psychometrika, Resuscitation, Retrovirology, Science, Science Translational Medicine, Statistics in Biopharmaceutical Research, Statistical Communications in Infectious Diseases, Statistics in Medicine, and Statistical Methods in Medical Research.

#### FDA Advisory Committees

Member of the FDA Antimicrobial Drugs Advisory Committee, 2015-present.

Member of the FDA Antiviral Drugs Advisory Committee, 2013-2015.

Member of the FDA Anti-Infective Drugs Advisory Committee, 2008-2011.

Member of the FDA Endocrinologic and Metabolic Drugs Advisory Committee, 2002-2006.

Guest for numerous FDA Advisory committees including Cardiovascular and Renal, Psychopharmacologic, Microbiology Medical Devices, Biological Response Modifiers, Nonprescription Drugs, and Vaccines and Related Biological Products Advisory Committee. Have attended over forty meetings as a voting committee member.

## Teaching

Instructor for "Evaluating Vaccine Efficacy" a short course of the Summer Institute in Statistics in Modeling in Infectious Diseases sponsored by the University of Washington. July 2016, July 2017.

### Data & Safety Monitoring Boards

Member of the NHLBI REVIVAL OSMB, 2015-present.

Member of the NHLBI Cardiology Data Safety and Monitoring Board for Intramural Studies, 2000-present.

Chair of the NCI/Center for Cancer Research Data Safety and Monitoring Board, 2009-present.

Member of the NHLBI INTERMACS—Interagency Registry of Mechanically Assisted Circulatory Support—OSMB, 2006-2017.

Member of the NCI/Center for Cancer Research Data Safety and Monitoring Board, 2003-2009.

Member of the Coronary Clinical Trial DSMB, 2010-2013.

Co-chair of the NCI/Center for Cancer Research Data Safety and Monitoring Board, 1999-2009.

Member Data Safety and Monitoring Board for the Esophageal Squamous Dysplasia Chemoregression Trial in Linxian, China, sponsored by NCI, 1999-2001.

Member of an NHLBI Data Safety and Monitoring Board for studies of pacemakers in patients with cardiomyopathy, 1997-2000.

#### Mentoring

Summer Intern Moming Li PhD Candidate GMU 2018.

PhD dissertation co-advisor for Wenjuan Gu, George Washington University Department of Statistics (2014-2018).

Postdoctoral Fellow Peter Kim 2015-16.

Summer Intern Amy Richardson PhD Candidate UNC 2013.

Summer Intern Shanshan Li PhD Candidate JHU 2011.

PhD dissertation committee member for John Jackson, George Washington University Department of Statistics 2011.

PhD dissertation committee member for Yong Ma, George Washington University Department of Biostatistics 2010.

#### Other

Elected Member of the Regional Committee (RECOM) of the Eastern North American Region (ENAR) of the International Biometric Society (2018-2020).

Reviewer for a Statistical Proposal to Research Foundation - Flanders (Fonds Wetenschappelijk Onderzoek - Vlaanderen, FWO) 2013.

Invited roundtable discussion leader on "Statistics at NIH", ENAR March 2008.

Organizer of a Blue Ribbon Panel to examine the role of Epidemiology at NIAID, 2005.

Reviewer for Gates Foundation 2004.

Co-organizer of the workshop "Endpoints and Regulatory Issues in HIV Vaccine Clinical Trials", 2004.

Chair of the VAX004 Analysis Committee 2003. Provided an independent analysis of the first Phase III trial of an HIV vaccine and briefed various groups on the results, 2003-2004.

Project Officer for a 5 year, \$5M contract to design, implement, and maintain a clinical research database and provide for statistical analysis for the Division of Intramural Research, National Heart, Lung, and Blood Institute, 2001-2002.

ENAR van Ryzin student paper award committee Fall 1999.

Member of an expert panel on intramural promotion for the National Institute of Child Health and Development, 1999.

Member of the Regional Advisory Board of the Biometric Society-ENAR 1998-2000.

Consultant to the Cardiovascular Research Institute, George Washington University 1997. Provided advice concerning the design, monitoring and sample size of an equivalence study.

Member of an External Review Board for hiring for the FDA, 1995.

Section Chair for Public Health and Biostatistics, Washington Statistical Society 1992-93.

Member of the Review Committee for the Anti-epileptic Drug Development Program of the National Institute of Neurological Disorders and Stroke, 1992.

Consultant to Research Consultants Incorporated. Modified and programmed a random effects model for application to Navy retention data. 1988.

Member of the American Statistical Association, the Biometric Society, and the Washington Statistical Society.

Fellow of the Royal Statistical Society.

### STATISTICAL PUBLICATIONS

Gabriel EE, **Follmann DA** "Sieve CoP: A unified apporach to the statistical evaluation of vaccine mechanism," in preparation

Greenland S, Fay MP, Brittain EH, Shih JH, **Follmann DA**, Gabriel EE, Robins JM "On the Usefulness of Causal Models in Analyses for Personalized Medicine: The D-value is Not the Proportion of Patients Harmed by Treatment," *submitted* 

Follmann DA, Fay MP, Hamasaki T, Evans S. "Analysis of ordinal composite endpoints

subject to censoring," submitted

Follmann DA, Brittain E, Lumbard K, "Half-blind superiority tests for clinical trials of anti-infective drugs," *Statistics in Medicine* 2018 PMID: 30203497 DOI: 10.1002/sim.7954.

Gabriel EE, **Follmann DA** "Predictive cluster level surrogacy in the presence of interference," *Biostatistics* 2018 https://doi.org/10.1093/biostatistics/kxy050.

Evans, S Rubin DB Powers JH, and **Follmann DA** "Analysis Populations in Anti-Infective Clinical Trials: Whom to Analyze?" *Statistical Communications in Infectious Diseases* 2018.

**Follmann DA** "Reliably picking the best endpoint," *Statistics in Medicine* 2018 37 4374-4385.

Fay MP, Brittain E, Shih J, **Follmann DA**, Gabriel EE "Causal estimands and confidence intervals associated with Wilcoxon-Mann-Whitney tests in randomized experiments," *Statistics in Medicine* 2018 37 2923-2937.

Gabriel EE, Nason M, Fay M, **Follmann DA** "A boundary optimized rejection region test for the two-sample binomial problem," *Statistics in Medicine* 2018 37 1047-1058.

Brittain E., **Follmann DA**, Joshi G. "Novel superiority tests for anti-infective drugs: Three examples," *Statistics in Biopharmaceutial Research* 2018 10 9-17.

Hu, Z, Follmann DA, Qin J "Semiparametric pseudoscore for regression with multidimensional but incompletely observed regressor," *Statistics in Medicine* 2018 37 207-217.

Ji S, Ning J, Qin J, **Follmann DA** "Conditional independence test by Generalized Kendall's tau with generalized odds ratio" *Statistical Methods in Medical Research* 2017, 0962280217695345

**Follmann DA**, Huang CY "Sieve analysis using the number of infecting pathogens," *Biometrics* 2017 10.1111/biom.12833

Evans S, Follmann DA "Using outcomes to analyze patients rather than patients to analyze outcomes: A step toward pragmatism in benefit:risk evaluation" *Statistics in Biopharmaceutical Research* 2016; 8(4) 386-393.

**Follmann DA**, Huang CY, Gabriel EE "Who really gets strep sore throat? Confounding and effect modification of a time-varying exposure on recurrent events" *Statistics in Medicine* 2016 35 4398-4412.

Gabriel EE, **Follmann DA** "Augmented trial designs and counterfactual measurements" *Biostatistics*; 2016 3 453-467.

Fay MP, **Follmann DA** "Non-inferiority tests for anti-infective drugs using control quantiles" *Clinical Trials*; 2016 1740774516654861.

Li, S, Sun Y, Huang, CY, **Follmann, DA**, & Krause RM "Recurrent event data analysis with intermittently observed time-varying covariates" *Statistics in Medicine* 2016; 35 3049-3065.

Evans S, Follmann DA "Fundamentals and innovation in antibiotic trials" *Statistics in Biopharmaceutical Research* 2015; 7(4) 331-336.

Hu Z, Follmann DA, Kazutoyo M "Vaccine design via nonnegative lasso-based variable

selection" Statistics in Medicine 2015; 34 1791-1798.

**Follmann DA** & Huang CY "Incorporating Founder Virus Information in Vaccine Field Trials," *Biometrics* 2015; 71 386-396.

Qin J, & Follmann DA "Semiparametric maximum likelihood inference by using number of failed contact attempts to adjust for non-ignorable non-response" *Biometrika* 2014; 101 985-991.

Follmann DA & Proschan M "On the design and analysis of clinical trials with correlated outcomes" Contemporary Clinical Trials 2014; 39 86-94

Hu, Z, Follmann, DA, & Wang N "Estimation of mean response via effective balancing score" *Biometrika* 2014; 101 613-624.

Chuang-Stein C, Follmann DA Chappell R "University of Pennsylvania 6th annual conference on statistical issues in clinical trials: Dynamic treatment regimes (afternoon session)," Clinical Trials 2014 11: 457-466.

**Follmann, DA**, Qin J, Gessner B, Guerrero ML, Ruiz-Palacios, GM "Estimating the burden of pertussis in Mexico using repeated antibody levels," *Journal of the Royal Statistical Association: Series C* 2014; 63 621-637.

Hu, Z, Qin J, **Follmann DA** "Semiparametric mixture survival model with application to MRFIT study" *Statistics and its Interface* 2014; 7(1) 19-26.

Hu, Z, Follmann DA "Acute-to-chronic ratio as a metric for HIV surveillance" *Open Journal of Statistics* 2014; 4 111-117.

**Follmann DA**, Brittain E, Powers JH "Discordant MIC Analysis: A New Path to Licensure for Anti-infective Drugs," *Clinical Trials* 2013; 10 876-885.

Brittain E, Fay, M, & Follmann, DA "A valid approach to noninferiority testing with historical random effects meta-analysis" *Biostatistics* 2012; 13(4) 637-649.

Hu, Z, Follmann, DA, & Qin J "Semiparametric double balancing score estimation for incomplete data with ignorable missingness" *Journal of the American Statistical Association* 2012; 107 247-257.

Follmann, DA "Comment on Probabilistic Index Models" Journal of the Royal Statistical Society: Series B, 2012; 75 623-671.

Follmann, DA & Fay M. "Bounds on the effect of vaccine induced immune response on outcome" *International Journal of Biostatistics*, 2012; 8(2).

**Follmann, DA** & Proschan M "A test of location for exchangeable multivariate normal data with unknown correlation" *Journal of Multivariate Analysis* 2012; 104 115-125.

Huang, CY, Qin, J, & Follmann DA "A maximum pseudo-profile likelihood estimator for the Cox model with length-biased sampling" *Biometrika* 2012; 1-12.

Follmann DA "Comment on A Sequential Phase 2b Trial Design for Evaluating Vaccine Efficacy and Immune Correlates for Multiple HIV Vaccine Regimens," *Statistical Communications on Infectious Diseases*, 2011; 3(1).

- Brittain E & Follmann, DA "A hierarchical rank test for crossover trials with censored data" *Statistics in Medicine*, 2011; 3507-3519.
- **Follmann, DA** & Nason M "An augmented probit model for missing predictable covariates in quantal bioassay with small sample size" *Biometrics* 2011; 67 1127-1134.
- Huang CY, Luo X, & Follmann, DA "A model checking method for the proportional hazards model with recurrent gap time data," *Biostatistics* 2011; 12 535-547.
- Hu, Z, Follmann, DA, & Qin J "Dimension reduced kernel estimation for distribution function with incomplete data" *Journal of Statistical Planning and Inference* 2011; 3084-3093.
- Nason, M, Follmann, DA "Design and analysis of crossover trial designs for absorbing binary endpoints," *Biometrics* 2010; 958-965.
- Hu, Z, Follmann, DA, & Qin J "Semiparametric dimension reduction estimation for mean response estimation with missing data" *Biometrika* 2010; 97 305-319.
- Follmann, DA & Fay M, "Exact Inference for Complex Clustered Data Using Within Cluster Resampling," *Journal of Biopharmaceutical Statistics* 2010; 20(4) 850-869.
- **Follmann, DA**, Qin J, Hoshino Y. "Estimation of viral infection and replication in cells using convolution models," *JRSS-C: Applied Statistics* 2010; 59 423-435.
- **Follmann DA**, Fay M, & Proschan M "Chop-lump tests for vaccine trials," *Biometrics* 2009; 65 885-893. Selected as Best Paper in Biometrics 2009. Also selected as one of 15 classic Biometrics papers 2013.
- Huang, CY, Qin, J, & **Follmann DA** "Empirical likelihood-based estimation of treatment effect in a pretest-posttest study," *Journal of the American Statistical Association* 2008; 103 1270-1280.
- Hu, Z, Qin J, & **Follmann DA** "Semiparametric two-sample changepoint model with application to human immunodeficiency virus studies *JRSS-C: Applied Statistics* 2008; 57(5) 589-607
- Hu, Z, Follmann DA, Qin, J. Dewar R, Sangweni, P "A Nonparametric Likelihood Test for Detecting Discordance between Two Measurements with Application to Censored Viral Load Determinations," *Statistics in Medicine* 2008; 27(22) 4489-4501.
- Proschan M. A, & **Follmann**, **DA** "Cluster Without Fluster: The Effect of Correlated Outcomes on Inference in Randomized Clinical Trials," *Statistics in Medicine* 2008; 27 795-809.
- Brittain, E, **Follmann**, **DA**, & Song Y. "Dynamic Comparison of Kaplan-Meier Proportions: Monitoring a Randomized Clinical Trial with a Long Term Binary Endpoint," *Biometrics* 2008; 64: 189-197.
- Qin L, Gilbert, P, **Follmann DA** & Li D. "Assessing Surrogate Endpoints in Vaccine Trials with Case-Cohort Sampling and the Cox Model" *Annals of Applied Statistics* 2008; 1: 386-407.
- Albert, P.S. & Follmann, DA "Random Effects and Latent Processes Approaches for An-

- alyzing Binary Longitudinal Data with Missingness: A Comparison of Approaches Using Opiate Clinical Trial Data," *Statistical Methods for Medical Researchers* 2007; 16 417-439.
- Fay, M.P., Halloran M.E., & **Follmann, DA** "Accounting for Variability in Sample Size Estimation with Applications to Nonadherence and Estimate of Variance and Effect Size," *Biometrics* 2007; 63 465-474.
- Hu, Z., & Follmann, DA "Statistical Methods for Active Extension Trials," *Statistics in Medicine* 2007; 26 2433-2448.
- **Follmann, DA** "Augmented Designs to Assess Immune Response in Vaccine Trials," *Biometrics* 2006; 62 1161-1169.
- Marron JS, Muller HG, Rice J, Wang JL, Wang NY, Wang YD, Davidian M, Diggle P, Follmann DA, Louis TA, Taylor J, Zeger S, Goetghebeur E, Carroll RJ "Discussion of nonparametric and semiparametric regression" *Statistica Sinica* 2004; 14 615-629.
- Proschan M. A & **Follmann**, **DA**, "A Permutation Approach to the Behrens-Fisher Problem," *Journal of the Korean Statistical Society* 2004; 33 79-97.
- Stylianou, M. & Follmann, DA "The Accelerated Biased Coin Up-and-Down Design in Phase I Trials," *Journal of Biopharmaceutical Statistics* 2004; 14 249-260.
- Wu, C.O., Zheng, G., Leifer, E., **Follmann, DA**, & Lin, J.P. "A Statistical Method for Adjusting Covariates in Linkage Analysis with Sib Pairs," *Biomed Central Genetics* 2003; 31; 4 Suppl 1:S51.
- "Comparing HLA Antigen Frequencies Between Two Groups," Follmann, DA Statistics in Medicine 2003; 22 1999-2013.
- **Follmann, DA**, Proschan M.A. & Leifer, E. "Multiple Outputation: Inference for Complex Multivariate Data by Averaging Analyses From Univariate Data," *Biometrics* 2003; 59 420-429.
- Albert, P.S. & **Follmann, DA** "A Random Effects Transition Model for Longitudinal Binary Data with Informative Missingness," *Statistica Neerlandica* 2003; 57 100-111.
- **Follmann, DA**, "Regression Analysis Based on Pairwise Ordering of Patients' Clinical Histories," *Statistics in Medicine* 2002; 21 3353-3367.
- Albert, P.S. & Follmann, DA, Wang, S.A., & Suh, E. "A Latent Process Model for Longitudinal Binary Data Subject to Nonignorable Missingness," *Biometrics* 2002; 58 631-642.
- Hunsberger, S., Albert, P. S., & **Follmann**, **DA**, & Suh, E. "Parametric and Semiparametric Approaches to Testing for Seasonal Trend in Serial Count Data," *Biostatistics* 2002; 289-298.
- Fay, M. P. & Follmann, DA, "Designing Monte Carlo Implementations of Permutation or Bootstrap Hypothesis Tests," *American Statistician* 2002; 56 63-70.
- Hunsberger, S. & **Follmann, DA** "Testing for Treatment and Interaction Effects in Semi-parametric Analysis of Covariance," *Statistics in Medicine*, 2001; 20 1-19.
- Follmann, DA "On the Effect of Treatment Among Treatment Compliers: An Analysis of the Multiple Risk Factor Intervention Trial," *Journal of the American Statistical Association*, 2000; 95 1101-1109.

Albert, P.S. & Follmann, DA "Modeling Repeated Count Data Subject to Informative Dropout," *Biometrics*. 2000; 56 667-677.

**Follmann, DA** & Proschan, M.A., "A Multivariate Test of Interaction for Use in Clinical Trials," *Biometrics*. 1999; 55 1151-1155.

Follmann, DA & Proschan, M.A., "Valid Inference in Random Effects Meta-analysis," *Biometrics*. 1999; 55 732-737.

Follmann, DA & Proschan, M.A., "A Simple Permutation-Type Method for Testing Circular Uniformity with Correlated Angular Measurements," *Biometrics*, 1999; 55 782-791.

**Follmann, DA** & Albert, P.S., "Bayesian Monitoring of Event Rates with Censored Data," *Biometrics*, 1999; 55 603-607.

**Follmann, DA**, Hunsberger, S, & Albert, P.S. "Repeated Probit Regression When Covariates Are Measured With Error," *Biometrics*, 1999; 55 403-409.

Wu M., & Follmann, DA "Use of Summary Measures to Adjust for Informative Missingness in Repeated Measures with Random Effects," *Biometrics*, 1999; 55 75-84.

Geller, N. L., Proschan, M. A., & **Follmann, DA** "Group Sequential Monitoring of Multi-Armed Clinical Trials," *Drug Information Journal*, 1999; 33 479-486.

Gu, M., Follmann, DA, & Geller, N. "Monitoring a General Class of Two Sample Survival Statistics with Applications," *Biometrika*, 1999; 86 45-58.

Follmann, DA "Adaptively Changing Subgroup Proportions in Clinical Trials," *Statistica Sinica*, 1997; 7 1085-1102.

Albert, P.S. & **Follmann, DA**, Barnhart, H. X. "A Generalized Estimating Equations Approach for Modeling Multivariate Random Length Binary Data," *Biometrics*, 1997; 53 1116-1124.

Proschan, M. & Follmann, DA "A Restricted Test of Circadian Rhythm," *Journal of the American Statistical Association* 1997; 92 717-724.

**Follmann, DA** "Long Term Followup in AIDS Clinical Trials: Discussion," *Statistics in Medicine*, 1996; 15 2367-2370.

**Follmann, DA** "A Simple Multivariate Test for One Sided Alternatives," *Journal of the American Statistical Association*, 1996; 91 854-861.

Proschan, M. A. & Follmann, DA "One Experiment or Many? The Effect of a Single Control on the Distribution of Type I Errors," *American Statistician*, 1995; 49 144-149.

**Follmann, DA** "Multivariate Tests for Multiple Endpoints in Clinical Trials," *Statistics in Medicine*, 1995; 14 1163-1176.

Geller, N., Proschan, M., & Follmann, DA "Group Sequential Monitoring of Multi-Armed Clinical Trials," *Drug Information Journal*, 1995; 29 705-713.

Follmann, DA & Wu, M. "An Approximate Generalized Linear Model With Random Effects For Informative Missing Data," *Biometrics*, 1995; 51 151-168.

Proschan, M. A., Follmann, DA & Geller, N.L. "Monitoring Multi-Armed Trials," Statistics

in Medicine, 1994; 13 1441-1452.

Follmann, DA, Proschan, M. A. & Geller, N. L. "Monitoring Multi-Armed Trials," *Biometrics* 1994; 50 325-336.

**Follmann, DA** & Proschan, M. A. "The Effect of Estimation and Biasing Strategies On Selection Bias in Clinical Trials with Permuted Blocks," *Journal of Statistical Planning and Inference*, 1994; 39 1-17.

**Follmann, DA** "Modeling Transitional and Joint Marginal Distributions in Repeated Categorical Data," *Statistics in Medicine*, 1994; 13 467-477.

Follmann, DA, Wu, M., & Geller, N. "Testing Treatment Efficacy in Clinical Trials With Repeated Binary Measurements and Missing Observations," *Communications in Statistics: Theory and Methods*, 1994; 23(2) 557-574.

Proschan M. A., **Follmann**, **DA** & Waclawiw, M. "Effects of Assumption Violations on Type I Error Rate in Sequential Monitoring" *Biometrics* 1992; 48(4) 1131-1144.

Follmann, DA "Growth Curve Models Under Order Restrictions," Communication in Statistics: Theory and Methods, 1992; 21(10) 2775-2807.

**Follmann, DA**, Elliott, P., Cutler, J., & Suh, I. "Variance Imputation for Overviews of Clinical Trials with Continuous Response," *Journal of Clinical Epidemiology*, 1992; 45(7) 769-773.

**Follmann, DA**, Wittes, J. & Cutler, J. "A Clinical Trial Endpoint Based on Subjective Rankings," (with discussion) *Statistics in Medicine*, 1992; 11(4) 427-438.

Follmann, DA, Wittes, J. & Cutler, J. "Rejoinder", Statistics in Medicine 1992; 11(4) 453-454.

**Follmann**, **DA** "The Effect of Screening on Some Pretest-Posttest Test Variances," *Biometrics* 1991; 47 763-771.

Follmann, DA & Lambert, D. "Identifiability of Finite Mixtures of Logistic Regression Models," *Journal of Statistical Planning and Inference*; 1991; 27 375-381.

**Follmann, DA** "Modeling Failures of Intermittently Used Machines," *Applied Statistics* 1990; 39(1) 115-123.

Follmann, DA & Lambert, D. "Generalizing Logistic Regression by Nonparametric Mixing," *Journal of the American Statistical Association* 1989; 84 295-300.

**Follmann, DA** & Goldberg, M. "Distinguishing Heterogeneity from Decreasing Hazard Rates," *Technometrics* 1988; 30(4) 389-396.

**Follmann, DA** "Consistent Estimation in the Rasch Model Based on Nonparametric Margins," *Psychometrika* 1988; 53(4) 553-562.

## MEDICAL PUBLICATIONS

Hoffmann PM, Ombrello A, Stone DL, **Follmann DA**, Barron K, Jones A, Romeo T, Toro C, Soldatos A, Hay A, Zhou Q, Aksentijevich I, Kastner DL. "Risk of Hemorrhagic Strokes in Patients with Adenosine Deaminase 2 Deficiency" *Arthritis & Rheumatology* 2018 70.

Evans SR, Follmann D, Liu Y, Holland T, Doernberg SB, Rouphael N, Hamasaki T, Jiang Y, Lok JJ, Tran TT, Harris AD. "Sequential Multiple Assignment Randomized Trials for COMparing Personalized Antibiotic StrategieS (SMART-COMPASS)." *Clinical Infectious Diseases* 2018 Oct 23.

Melbin-Jose JJ, Brahmadathan KN, Abraham VJ., Huang CY, Morens D, Hoe NP, **Follmann DA**\* Krause R "Streptococcal Group A, C, and G Pharyngitis in School Children: A Prospective Cohort Study in Southern India," *Epidemiology and Infection* 2018 4 1-6. \* corresponding author

Logue J, Tuznik K, **Follmann DA**, Grandits G, Marchand J, Reilly C, Sarro Y, Pettitt J, Stavale E, Fallah M, Olinger G, Bolay F, Hensley L, "Use of the Filovirus Animal non-Clinical Group (FANG) Ebola virus Immuno-assay requires fewer study participants to power a study than the Alpha Diagnostic" *Journal of Virological Methods* 2018 255 84-90.

Gautam R, Nishimura Y, Gaughan N, Gazumyan A, Schoofs T, Buckler-White A, Seaman M, Swihart B, **Follmann DA**, Nussenzweig M "A single injection of Fc modified antibodies elicits durable protection from SHIV infection" *Nature Medicine*, 2018 24 610-616.

Kennedy S, Bolay F, Kieh M, Grandits G, Badio M, Ballou R, Eckes R, Feinberg M, Follmann DA, Grund B, Gupta S, Hensley L, Higgs E, Janosko K, Johnson M, Kateh F, Logue J, Marchand J, Monath T, Nason M, Nyenswah T, Roman F, Stavale E, Wolfson J, Neaton J, Lane HC "Phase 2 Placebo-Controlled Trial of 2 Vaccines to Prevent Ebola in Liberia," New England Journal of Medicine 2017; 377(15) 1438-1447.

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Albert P. S. & **Follmann**, **DA** "Shared Random Effects Models" Longitudinal Data Analysis: A Handbook of Modern Statistical Methods", *Chapman & Hall/CRC Press*.

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Geller, N. L., Leifer, E. S., **Follmann, DA**, & Carter, S "Design of Early Trials in Stem Cell Transplantation: A Hybrid Frquentist-Bayesian Approach," in *Advances in Clinical Trial Biostatistics* N. Geller editor. Marcel Dekker 2004.

Follmann, DA, Wu, M., & Geller, N. "Issues in the Analysis of Clinical Trials for Opiate Dependence," *Statistical Issues in Clinical Trials for Treatment of Opiate Dependence* 1992; National Institute of Drug Abuse: Monograph 128.

Fienberg, S. E., Bromet, E. J., **Follmann, DA**, Lambert, D., & May, S. M. "Longitudinal Analysis of Categorical Epidemiological Data: A Study of Three Mile Island," *Environmental Health Perspectives* 1985; 63 241-248. Also in *Biostatistics in Cancer Risk Assessment*, 1991; 169-176, D.G. Hoel & T. Yanagawa, editors, Tokyo: Scientist, Inc.

#### **ENCYCLOPEDIA ARTICLES**

Follmann DA "Within Cluster Resampling/Multiple Outputation" John Wiley & Sons, Wiley StatsRef-Statistics Reference Online 2017.

**Follmann, DA** "Primary Efficacy Endpoint," Encyclopedia of Clinical Trials, *John Wiley & Sons* 2007.

**Follmann, DA** "Nonstandard Multivariate Tests," in *Encyclopedia of Statistical Sciences* 2015; tbd.

Follmann, DA "Nonstandard Multivariate Tests," in Encyclopedia of Statistical Sciences: Update Volume 2 1998; 490-492.

## Teaching

"Evaluating Vaccine Efficacy" University of Washington Summer Institute in Statistics and Modeling in Infectious Diseases. 2016, 2017

#### INVITED PRESENTATIONS

- "Reliably Picking the Best Endpoint" George Washington University, November 2018.
- "Tomorrow's HIV Prevention Trials," HIV Prevention Efficacy Trial Designs of the Future, Seattle, November 2018
- "Dynamic Treatment Regimens for Superbug Infections," Joint Statistical Meetings, Vancouver Canada, August 2018.
- "Dengvaxia Phase 3 Studies: Interpretation and Implications" NIAID Executive Committee, May 2018.
- "A Semi-parametric Regression Approach for Ordered Composite Endpoints in Clinical Trials with Censoring," Society for Clinical Trials Annual Meeting, Portland OR May 2018.
- "Sieve Analysis Using the Number of Infecting Pathogens" University of North Carolina, November 2017.
- "Sieve Analysis Using the Number of Infecting Pathogens" University of Rochester, October 2017.
- "Sieve Analysis Using the Number of Infecting Pathogens" International Chinese Statistical Association Meeting, Shanghai China, December 2016.
- "PK/PD versus Frequentist Approaches for Drug Development" ESCMID/ASM Conference on Drug Development to Meet the Challenge of Antimicrobial Resistance, Vienna, September 2016.
- "Sieve Analysis Using the Number of Infecting Pathogens" Joint Statistical Meetings Chicago Illinios, August 2016.
- "Sieve Analysis Using the Number of Infecting Pathogens" George Washington University, May 2016.
- "Sieve Analysis for Vaccine Development" Plenary Speaker, FDA CBER Scientific Symposium May 2016.
- "Crossover Trials for Survival Endpoints" Society for Clinical Trials Annual Meeting, Montreal Canada, May 2016.
- "Sieve Analysis Using the Number of Infecting Pathogens" ENAR Spring Meeting, March 2016.
- "Sieve Analysis Using the Number of Infecting Pathogens" National Institute of Child Health and Development, December 2015.

- "Half-Blind Methods For Licensure of Anti-infective Drugs" Joint Statistical Meetings, August 2015.
- "Half-Blind Methods For Licensure of Anti-infective Drugs" Society for Clincal Trials Annual Meeting, May 2015.
- "Half-Blind Methods For Licensure of Anti-infective Drugs" Johns Hopkins University Symposium on Clincal Trials and Regulatory Science May 2015.
- "Incorporating Founder Virus Information in Vaccine Field Trials" Georgetown University, April 2015.
- "Vaccine Efficacy: The Virion's View" University of Minnesota, October 2014.
- "Vaccine Efficacy: The Virion's View" ASA Biopharmaceutical Section FDA-Industry Statistics Workshop September 2014.
- "Vaccine Efficacy: The Virion's View" Joint Statistical Meetings, August 2014.
- "Vaccine Efficacy: The Virion's View" WNAR Annual Conference, June 2014.
- "Innovation Trial Designs: A Discussion" DIA/FDA Statistics Forum, April 2014.
- "Vaccine Efficacy: The Virion's View" University of Washington, March 2014.
- "So Many Trials, So Little Time: Promise and Pitfalls of Meta-analysis" Conference on Retroviruses and Opportunistic Infections, March 2014.
- "An Overview of Vaccine Efficacy" Webinar for the Vaccines Subcommittee of the International Society for Clinical Biostatistics, December 2013.
- "Vaccine Efficacy: The Virion's View" Vanderbilt University, October 2013.
- "Strengths and Weakness of Clinical Trials and Observational Studies" Second David Sackett Symposium: "Is It Time to Retire The Randomized Trial?" September 2013.
- "Discussion of Meta-analysis of Ad5-vector HIV vaccine Trials" NIAID Mini-Summit on Adenovirus Platforms for HIV vaccines, September 2013.
- "Vaccine Efficacy: An Overview" Keynote speaker for the Vaccines Subcommittee Program at the Annual Conference of the International Society for Clinical Biostatistics, August 2013.
- "Statistical Issues in HIV Prevention Trials circa 2013" Workshop on Ethical Considerations Around Novel Combination Prevention Modalities in HIV Prevention and Vaccine Trials in Resource Limited Settings, April 2013
- "Estimating the Burden of Pertussis in Mexican Adolescents from Paired Serological Data Using a Bivariate Mixture Model," University of Connecticut, October 2012.
- "On the Design and Analysis of Clinical Trials with Correlated Outcomes" International Chinese Statistical Association Annual Meeting, June 2012.
- "The Role of Statisticians at the NIH" ENAR Spring Meeting, March 2012
- "Discussion of Adaptive Design in Vaccine Trials" ENAR Spring Meeting, March 2012.
- "The effect of HIV-chemoprevention in compliers" Johns Hopkins University Causal Interest Group, December 2011.

- "Assessing Drug Safety Post Approval, Lessons from Vioxx, Avandia and Meridia, A Statistician's Perspective," American Heart Association Quality of Care and Outcomes Research Meeting, Washington DC, May 2011.
- "Bounds on the effect of vaccine induced immune response on outcome," Workshop on Causal Inference in Health, Montreal, May 2011.
- "Estimating the Burden of Pertussis in Mexican Adolescents," International Workshop on Pertussis in Adolescence: Controversies and Challenges, Mexico City April 2011.
- "Analyzing the Causal Effect of Immune Response on Protection in Vaccine Trials" University of Maryland Baltimore County Workshop on Contemporary Statistical Methods in Biostatistics March 2011.
- "Immune Correlates Analysis From An Expanded HIV Vaccine Trial" WHO-UNAIDS Workshop: Adaptive Trail Design for HIV Vaccine Clinical Trials: Opportunities and Challenges, February 2011.
- "Chop-Lump Tests for Vaccine Trials," International Biometric Society Meeting Brazil 2010.
- "Strengths/Limitations of Different Clinical Sources of Evidence for Drug Safety in Pharmacologic Treatments of Type 2 DM Controlled Clinical Trials, Observational Data, Meta-Analysis Synthesizing Information from Different Study Designs," FDA/Drug Information Agency Meeting on Development of Type 2 Diabetes Mellitus Drugs: State of the Art Cardiovascular Safety Assessments October 2010.
- "Crossover Trials for Survival and Recurrent Events" University of Maryland Baltimore County, October 2010.
- "Synthesizing Information from Different Study Designs," FDA Advisory Committee Meeting on Rosiglitazone (Avandia) July 2010.
- "Chop-Lump Tests for Vaccine Trials," Harvard Department of Biostatistics/Merck Workshop May 2010.
- "Crossover Trials for Survival and Recurrent Events" University of Pennsylvania, April 2010.
- "Crossover Trials for Survival and Recurrent Events" Yakovlev Colloquim Speaker, University of Rochester, September 2009.
- "Missing Data in Licensure Clinical Trials" National Academy of Sciences Workshop on the Handling of Missing Data in Clinical Trials September 2009.
- "Successful Collaboration at the National Institute of Allergy and Infectious Diseases," Washington DC, Joint Statistical Meetings, August 2009.
- "Collaborative Statistical Work at the National Institute of Allergy and Infectious Diseases" San Francisco, International Chinese Statistical Association, June 2009.
- "Crossover Trials for HIV Prevention," Keystone Symposia Conference, Prevention of HIV/AIDS, Keystone Colorado, March 2009.
- "Crossover Designs for Absorbing Binary Endpoints," George Mason University, February 2009.

- "Crossover Designs for Absorbing Binary Endpoints," University of Alabama, September 2008.
- "Chop-lump Tests for Vaccine Trials" WNAR, June 2008.
- "Shared Random Parameter Models for Informative Missing Data," Graybill Conference, June 2008.
- "Multiple Outputation: A Simple Fix for Complex Clustered Data," National Institute of Aging Workshop on Statistical Methods for Longitudinal Data, June 2007.
- "The Burden of Success," Plenary address, HIV Vaccine Trials Network Annual Meeting, May 2007.
- "Determining the Causal Role of Immunological Surrogates in Vaccine Trials," Workshop on Statistical and Epidemiology Issues in HIV Research, April 2007.
- "On Comparing Infecteds in Vaccine Trials" ENAR Spring Meeting, March 2007.
- "Designs to Assess the Role of Immune Response in Vaccine Trials" FDA, September 2006.
- "Designs to Assess the Role of Immune Response in Vaccine Trials" ENAR Spring Meeting, March 2006.
- "Designs to Assess the Role of Immune Response in Vaccine Trials" George Washington University, October 2005.
- "Composite Endpoints," Future Clinical Trial Issues In Multiple Sclerosis, Washington DC, December 2004.
- "An Independent Analysis of the Effect of Race in VAX004," Symposium speaker at the 11th Conference on Retroviruses and Opportunistic Infections, San Francisco, February 2004.
- "An Analysis of VAX004," AIDS Vaccine Research Working Group, September 2003; Advisory Committee on Immunization Practices:HIV Vaccine Working Group, September 2003; HIV Communications Campaign Steering Committee, October 2003; Consultation Meeting on VAX004 Results, December 2003; 2004 African-Americans and AIDS Conference, February 2004; Office of AIDS Research Advisory Council, April 2004.
- "New Designs to Assess the Role of Immune Response in Vaccine Trials," Statistical Center for HIV/AIDS Research and Prevention, Fall 2003; Harvard Department of Biostatistics/Schering Plough Workshop, Spring 2004.
- "Multiple Outputation: Inference for Complex Multivariate Data by Averaging Analyses From Univariate Data," Johns Hopkins University, Fall 2003; Yale University, Fall 2003; National Cancer Institute, Fall 2003.
- "Regression Analysis Based on Pairwise Ordering of Patients' Clinical Histories," Emerging Issues in Longitudinal Data Analysis, Joint Summer Research Conference, Mt Holyoke College, Summer 2002; Northern Illinois University, Spring 2002.
- "The Role of the DSMB at the National Institutes of Health," 2001 Biostatistics and Clinical Data Management Workshop: The Road Ahead to Drug Development in the 21st Century, sponsored by PHRMA, Fall 2001.

- "Adaptive Modification of Sample Size in Clinical Trials: Discussant" Joint Statistical Meetings, Summer 2001.
- "On the Effect of Treatment Among Treatment Compliers: An Analysis of the Multiple Risk Factor Intervention Trial," Joint Statistical Meetings, Summer 2000.
- "On The Effect of Treatment Among Would-be Treatment Compliers," University of Pennsylvania, Fall 1999.
- "Adaptively Changing Subgroup Proportions in Clinical Trials" Midwest Biopharmaceutical Society Workshop, Spring 1999.
- "On the Effect of Treatment Among Treatment Compliers: An Analysis of the Multiple Risk Factor Intervention Trial," Columbia University, Division of Biostatistics, Spring 1999.
- "Testing Treatment Efficacy in Clinical Trials of Opiate Addicts," Biometric Society (ENAR) Spring Meeting 1999.
- "Valid Inference in Random Effects Meta-analysis," Biometric Society (ENAR) Spring Meeting 1999.
- "On the Effect of Treatment Among Treatment Compliers," National Cancer Institute, February 1999.
- "Valid Inference in Random Effects Meta-analysis," Food and Drug Administration, Fall 1998.
- "Methods for Missing Data in Clinical Trials," Instructor, Society for Clinical Trials Meeting, Spring 1998.
- "Repeated Probit Regression When Covariates Are Measured With Error," University of Rochester, Spring 1998.
- "Analyzing Multiple Endpoints in Clinical Trials," Drug Information Agency, Hilton Head Spring Meeting 1997.
- "Multivariate Tests in Clinical Trials," Biometric Society (ENAR) Spring Meeting 1996.
- "Models for Informative Missing Binary Data," UCSF, September 1995.
- "Multiple and Composite Endpoints In AIDS Clinical Trials," FDA Workshop on Current Issues in AIDS Clinical Trials, September 1995.
- "Multiple Endpoints in Clinical Trials," Fourth Regional Symposium on the Design and Analysis of Clinical Trials, UCSF Graduate Programs, September 1995.
- "Design Modifications in Ongoing Clinical Trials," Chair/Organizer, Joint Statistical Meetings Invited Session, August 1995
- "Statistical Issues in HIV/AIDS Research Symposium," discussant, June 1995.
- "Accounting for Covariates Observed Post Randomization for Discrete and Continuous Repeated Measures Data," discussant, Washington Statistical Society, May 1995.
- "A Generalized Linear Model for Informative Missing Data," University of Maryland, November 1994.

- "Dealing With Multiple Endpoints in Clinical Trials," Food and Drug Administration, August 1994.
- "Composite Endpoints in Clinical Trials," discussant, Society for Clinical Trials Annual Meeting, May 1994.
- "A Conditional Linear Model With Random Effects For Missing Data in Clinical Trials," Carnegie Mellon University, March 1994.
- "An Approximate Generalized Linear Model for Informative Missing Data," Delaware Chapter of the American Statistical Association, February 1994.
- "Statistical Implications of Different Clinical Investigation Designs for Antiarrhythmic Devices," Policy Conference on Clinical Investigation of Antiarrhythmic Devices, November 1993.
- "Testing for Nonmonotone Dose Response Curves Using A Slope Process," National Cancer Institute, June 1993.
- "Multivariate Tests for Multiple Endpoints," Biometric Society (ENAR) Spring Meeting 1993.
- "Modeling Transitional and Joint Marginal Distributions in Repeated Categorical Data," NIH Conference on Current Topics in Biostatistics, January 1993.
- "Semiparametric Methods For The Analysis of Dependent Response Data," discussant, Biometric Society (WNAR) Joint Statistical Meetings, August 1992.
- "Monitoring Multi-Armed Trials With Pairwise Comparisons," Biometric Society (ENAR) Joint Statistical Meetings, August 1992.
- "Selection Bias in Clinical Trials Using Random Permuted Blocks," Johns Hopkins University, November 1991.
- "Issues in the Analysis of Clinical Trials for Opiate Dependence," Statistical Issues in Clinical Trials for Treatment of Opiate Dependence, November 1991.
- "Determination of Normal Ranges For  $\alpha$ -Antitrypsin Deficiency: A Statistical Model of an Upregulatable Gene," discussant, Washington Statistical Society, December 1990.
- "Medical Decision Making and the ROC Curve: A Nonparametric Perspective," discussant, Washington Statistical Society, May 1990.
- "The Effect of OPTEMPO on the Battle 'E'," U.S. Navy Resources-to-Readiness Conference, November 1986.

### CONTRIBUTED PRESENTATIONS

- "Outputation Permutation: Exact Inference for Complex Clustered Data," Joint Statistical Meeting, August 2006.
- "A Simple Permutation-Type Method for Testing Circular Uniformity with Correlated Angular Measurements," Biometric Society (ENAR) Spring Meeting 2000.
- "An Approximate Generalized Linear Model With Random Effects For Informative Missing Data," Annual Meeting, American Statistical Association, 1992.

"Growth Curve Models Under Order Restrictions," Annual Meeting, American Statistical Association, 1990.

"Distinguishing Heterogeneity from Decreasing Hazard Rates," Annual Meeting, American Statistical Association, 1988.

## INTERNAL REPORTS

**Follmann, DA** "The Effect of Usage on the Reliability of Selected Combat Systems," CONFIDENTIAL. CNA Research Memorandum, 1988.

Kostiuk, P., **Follmann, DA** & Shiells M. "Utilization of Personnel Resources within the Navy Selected Reserve," CNA Research Memorandum 88-155, 1988.

Follmann, DA "Should Radars Be Warmed Up?" CNA Research Memorandum 88-82, 1988.

Goldberg, M. & Follmann, DA "Numerical Methods in Maximum Likelihood Estimation," CNA Research Contribution 583.

Kostiuk, P. & Follmann, DA "The Retention of Navy Veterans in the Selected Reserve," CNA Research Memorandum 88-72, May 1988.

**Follmann, DA** "The Effect of Reliability Centered Maintenance on Ship Readiness," CON-FIDENTIAL. CNA Research Memorandum 88-40, March 1988.

Kostiuk, P. & Follmann, DA "Learning Curves, Personal Characteristics, and Job Performance," CNA Research Contribution 584, March 1988.

Kostiuk, P. & Follmann, DA "Naval Reserve Recruiter Experience and Productivity," CNA Research Memorandum 87-240, December 1987.

**Follmann, DA** "The Effect of EM Manning on the Material Condition of the Electrical Distribution System," CNA Research Memorandum 87-225, November 1987.

Follmann, DA, Goldberg, M. & May, L. "Modeling Spikes in Hazard Rates," CNA Research Contribution 572, October 1987.

Follmann, DA "Modeling Failures of Intermittently Used Machines," CNA Research Memorandum 87-111, July 1987.

**Follmann, DA** "The Effect of a Ship's Employment History on the Material Condition Index," CNA Research Memorandum 87-36, May 1987.

**Follmann, DA** & Goldberg, M. "Distinguishing Heterogeneity from Decreasing Hazard Rates," CNA Research Memorandum 86-260, December 1986.

Follmann, DA "An Analysis of 4855 Data: Combat System Availability Estimates and the Effect of Usage on Failures," CNA Research Memorandum 86-215, October 1986.

Follmann, DA & Goldberg, M. "Beta-Geometric Model for Aircraft Component Failures," CNA Research Memorandum 86-202, September 1986.

**Follmann, DA** "The Battle Force Logistics Coordinator in FLEETEX 1-86," CNA Research Memorandum 86-147, October 1986.

Follmann, DA "A Comparison of Two Models for Component Failures," CNA Research

Memorandum 86-138, June 1986.

**Follmann, DA**, Marcus, A., & Cavalluzzo, L. "OPTEMPO and Ship Readiness," CNA Research Memorandum 86-123, June 1986.

**Follmann, DA** "Predicting Occupational Choices of Air Force Enlisted Personnel," RAND Working Draft WD(L)-2384-AF, October 1984.